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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BAYERL, RAYMOND J

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/823,233

Applicant(s)

CRONK, DAVID WESLEY

Examiner

Raymond J. Bayerl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 16 Jan 2002.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The title "SECURE DATA ACCESS" is descriptive of an excessively wide area of technology. A properly descriptive title might make mention of, for example, the applicability to a "data cube" or "multidimensional data".

2. The disclosure is objected to because of the following:

At page 3, lines 22 – 24, the brief description of the drawings contains a section for figs "10 through 29", but then one also for figs "29 through 33". Why is fig 29 listed twice?

At page 11, lines 12 – 16, applicant makes the unclear use of reference numeral "38", which does not appear in the drawings. It appears that perhaps RNs 34, 36 were intended in place of the recited "36, 38".

At page 18, line 19, it is not clear what is meant by "FIG 16"—might applicant have meant "FIG 25"?

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 95, fig 11 (see page 15, lines 15 – 16); 116, fig 25 (page 18, line 24); 122, 120, fig 27 (page 19, lines 1 – 2). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are further objected to for those instances of overlapped letters that make ready reference difficult. Examples of these appear in figs 7 – 9.

Appropriate correction is required.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 5, 9 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash et al. ("Bakalash"; US #6,385,604 B1) in view of Joseph et al. ("Joseph"; US #5,826,010) and Beall et al. ("Beall"; US #6,169,992 B1).

As per independent claim 1's "method" for gaining access to "members of a data cube" (and also independent claim 9's "computer-readable medium" having similar function), Bakalash, in interfacing a NON-RELATIONAL MULTI-DIMENSIONAL DATA STORE to the user via a RELATIONAL DATABASE teach applicant's "data cube" as the multi-dimensional data structure (MDD) (Abstract). Fig 6B actually illustrates the MDDB as a "cube". At fig 7B, Queries and Data are passed to the MDD, within an OS and Hardware Platform, and figs 9A – 10B show a traversal of the individual dimensions. It is significant to note that Bakalash's atomic data may refer to information by store, by day, and by item, in the example of a retail merchandising manager who needs access to the MDDB (see col 10, lines 34 – 46). This suggests the claimed "transactional data from which the data cube was derived". Presumably, a Balkash user can drill down among the dimensions to the level of individual transactions, if the case need arise; the problem solved is that of the sharing of data with external parties such as suppliers, customers and investors (col 1, lines 32 – 43).

While the kinds of enterprise data a Bakalash user might peruse are limited to what the enterprise supports within the MDDB "cube", Bakalash contains no **explicit** teaching of "setting access rights to members of a data cube" and its "transactional data", though a generalized "user interface" for Bakalash's Queries is certainly suggested, in making the system useful to the end users. However, Joseph specifically provides for PREDEFINED ACCESS RIGHTS FOR UNDEFINED ATTRIBUTES, where access protections relating to different categories of users and different types of access (Abstract) can be established. Joseph can give administrators and developers convenient flexibility in associating access protections (col 2, lines 60 – 65). This allows a range of attribute numbers to have access protections on the basis of user identity (col 4, lines 56 – 67).

Thus, it would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to limit the "access rights" of a Bakalash "data cube", using the concept of attribute-specific permissions taught by Joseph, so that the Bakalash end users will be assuredly given the interface they need and one which is properly restricted. Motivation lies in Bakalash, where various portions of the enterprise need different views upon the MDDB, and thus would benefit from per-"user" designations such as those provided in Joseph's TABLE I (col 4).

While a brief sentence in Bakalash states that a user interacts with a client machine (for example, using a web-enabled browser) to generate a natural language query (col 11, lines 53 – 62), there is no **explicit** teaching of "formatting a web page based on the set access rights", for communication "to a client device". However,

Beall's SEARCH ENGINE FOR REMOTE ACCESS TO DATABASE MANAGEMENT SYSTEMS has ample disclosure of handling queries via the Internet, and with a Web browser (5120) having a Java™ runtime environment (Abstract). Please note the use of a Netscape browser, with URLs, in Beall's figs 36 – 41. The present invention provides engineers and designers with the possibility that they can get direct access to their key supplier's data on-line, via the Internet (Beall, col 3, lines 42 – 48).

Thus, it would have been further obvious to the person having ordinary skill that an access interface to a “data cube” as per Bakalash that is restricted on the basis of “access rights” as per Joseph should then present “a web page” for the access, as per Beall, so as to increase the user-flexibility in obtaining relevant information through the on-line environment. Motivation lies in Bakalash's description of the enterprise scenario, in which suppliers, customers and inventors are typically distributed throughout many locations, and would benefit from a system that resides on the public-switched IP network.

As per the “dimensional hierarchy for the data cube” (claims 2, 10), please note, as in the previous discussion, that the Bakalash MDDB is selectively traversed according to dimensions, as in figs 9A – 10B. Dimensions are also seen in Beall, as in the Attribute selection enabled in fig 19. What results in the Beall interface is essentially “an electronic report” along the lines of the dimensions, and with Joseph, “input granting a user access to a subset” is then suggested as obvious, in the Bakalash enterprise.

As per claim 3 (see also claim 11), in producing an output report of searched-for information (such as the ultimate “transactional data”, as in Bakalash), “displaying data

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fields" is a part of the generation of column headings, as in Beall's fig 38. With Joseph added to such a combination, the "input granting a user access to a subset" is then provided for as obvious.

The "web page by which the user can compose an electronic report" (claim 4) is suggested by the Web browser output shown in Beall, as discussed above. A presentation of "multidimensional data of the accessible members of the data cube" in such a "report" follows from Joseph's modification of the Bakalash MDDDB to have "set access rights". As per "publishing the electronic report" (claim 5), Beall contains a further discussion of building parameterized URLs based on the current class, to develop upon a currently selected instance (col 32, lines 40 – 58). In navigating from a Beall display to a further level such as "accessible transactional data" (Bakalash), some manner of "icon" is typically involved in "viewing", in an interface such as Beall's Netscape.

7. Claims 6; 17 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash in view of Joseph.

As per independent claim 6's "method" (and also independent claim 17's "computer-readable medium"), the use of "a data cube having multidimensional data derived from transactional data" is suggested by Bakalash, as noted above, while "controlling access to individual members and dimensions" of this data is to be seen in Joseph's assignment of ACCESS RIGHTS FOR UNDEFINED ATTRIBUTES. As stated above with respect to claim 1, it would have been obvious to restrict access as per

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Joseph to the "transactional data" in Bakalash, so as to aid the Bakalash enterprise in providing appropriate interfaces for its assorted individual users.

Claim 18's concentration upon "a set of groups", "wherein each group relates to at least one of the user identifiers" is something seen in Joseph, where users are assigned within categories, according to their privilege within the system (see again TABLE I; col 5, lines 12 – 23).

8. Claims 7 – 8, 12 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash in view of Joseph and Beall.

Claim 7's "presenting an interactive environment for creating electronic reports" reads upon Beall's use of a Web browser to query and view database contents according to certain parameters. When user access is restricted as per Joseph, the "author" can "include only the accessible dimensions and members". A similar line of reasoning applies to claims 12, 15.

Claim 8's "publishing the electronic report", which is at least suggested by the parameterized URLs of Beall, will result in a receiving user (who has invoked the URL) having the potential of viewing "transactional data" that might appear in a "range" of the "multidimensional data" as per Bakalash. With the addition of Joseph's assignment of ACCESS RIGHTS, that user would only be able to view that for which "the user has access", upon considering such a "report". Claims 13, 16 are rejected along a similar line of reasoning.

Claim 14's "system", which operates upon "multidimensional data and transactional data", accepts user input via "a user interface for setting access rights",



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with the "data" source reading upon Bakalash, the "access rights" upon Joseph, and the "server"-originated "user interface" upon Beall, for reasons similar to those developed above. In Beall, a "page generation module" then presents "a web page" with the search results (as in Beall), but limited on the basis of "the set access rights" (Joseph).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The non-patent literature references derived from web-pages that are noted on the attached form PTO-1449 have been considered, only the Examiner wishes to point out that the only date that can be positively ascribed to them is the printout date of 25 October 2001. Since this fails to pre-date applicant's invention, they have not been considered to be prior art.


The remaining prior art documents made of record (see attached form PTO-892) relate to applicant's problem of establishing proper database access.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond J. Bayerl whose telephone number is (571) 272-4045. The examiner can normally be reached on M - F from 9:00 AM to 4:00 PM ET.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached on (571) 272-4048. All patent application related correspondence transmitted by FAX **must be directed** to the central FAX number (703) 872-9306.

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12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.



**RAYMOND J. BAYERL**  
**PRIMARY EXAMINER**  
**ART UNIT 2173**

2 February 2005